Amendments to the Claims:

The listing of clams will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for sending a plurality of ordered sets of data, the method comprising:

(a) identifying a <u>current</u> barrier ~~phase transition;~~ <u>phase different than the previous said current barrier phase, wherein the possible barrier phases consists of two possible barrier phases; and</u>

~~resetting a current data set indicator for the plurality of ordered sets of data to a predetermined ordered set of the plurality of ordered sets of data in response to receiving the barrier phase transition;~~

<u>after said (a) identifying operation: (b) repeatedly, until all of the plurality of ordered sets of data have been sent:</u> sending an ordered set of data of the plurality of ordered sets of data indicated by ~~the~~ <u>a</u> current data set ~~indicator;~~ <u>indicator along with an indication of the current barrier phase,</u> and advancing the current data set indicator to a next ordered set of data of the plurality of ordered sets of data<u>; and</u>

<u>(c) in response to completing said (b) operation repeating said (a) and (b) operations.</u>

Claim 2 (currently amended): The method of claim 1, ~~further comprising~~ <u>wherein said identifying the current barrier phase different than the previous phase includes</u> inverting a barrier <u>bit.</u> ~~bit in response to identifying the barrier phase transition.~~

Claim 3 (original): The method of claim 1, further comprising sending a start bit indication when the current data set indicator indicates the predetermined ordered set of the plurality of ordered sets of data.

Claim 4 (currently amended): The method of claim 1, wherein ~~the plurality of ordered sets of~~ said data ~~include~~ comprises flow control information.

Claim 5 (currently amended): The method of claim 1, wherein said sending the ordered set of data of the plurality of ordered sets of data indicated by the current data set indicator includes adding the ordered set of data to a field of a packet.

Claim 6 (canceled)

Claim 7 (original): A packet switching system performing the method of claim 1.

Claim 8 (original): A packet switching element performing the method of claim 1.

Claim 9 (canceled)

Claim 10 (original): A method for updating a data structure, the method comprising:
receiving a barrier bit;
receiving a start bit;
resetting a current data structure address to a predetermined address within the data structure in response to receiving the barrier bit and receiving the start bit;
receiving a plurality of data units;
updating the current data structure based on the received plurality of data units; and
advancing the current data structure address to a next location for storing a data unit.

Claim 11 (original): The method of claim 10, wherein identifying the barrier phase transition includes maintaining a current barrier state, and receiving a new barrier state indication different than the current barrier state.

Claim 12 (original): The method of claim 10, further comprising maintaining a current barrier bit state and comparing the current barrier bit state with a value of the received barrier bit.

Claim 13 (original): The method of claim 10, wherein the plurality of data units include flow control information.

Claim 14 (original): A packet switching system performing the method of claim 10.

Claim 15 (original): A packet switching element performing the method of claim 10.

Claim 16 (currently amended): An apparatus for sending a plurality of ordered sets of data, the apparatus comprising:

means for repeatedly: (a) identifying a current barrier phase transition; phase different than the previous said current barrier phase, wherein the possible barrier phases consists of two possible barrier phases; and then means for resetting a current data set indicator for the plurality of ordered sets of data to a predetermined ordered set of the plurality of ordered sets of data in response to receiving the barrier phase transition; means (b) for repeating, until all of the plurality of ordered sets of data have been sent: sending an ordered set of data of the plurality of ordered sets of data indicated by the current data set indicator; and means for advancing the current data set indicator to a next ordered set of data of the plurality of ordered sets of data.

Claim 17 (currently amended): The apparatus of claim 16, comprising wherein said means for identifying a current barrier phase includes means for inverting a barrier bit. bit in response to identifying the barrier phase transition.

Claim 18 (original): The apparatus of claim 16, comprising means for sending a start bit indication when the current data set indicator indicates the predetermined ordered set of the plurality of ordered sets of data.

Claim 19 (currently amended): The apparatus of claim 16, wherein ~~the plurality of ordered sets of~~ <u>said</u> data ~~include~~ <u>comprises</u> flow control information.

Claim 20 (original): The apparatus of claim 16, comprising means for adding the ordered set of data to a field of a packet.

Claim 21 (canceled)

Claim 22 (original): An apparatus for updating a data structure, the apparatus comprising:

means for receiving a barrier bit;

means for receiving a start bit;

means for resetting a current data structure address to a predetermined address within the data structure in response to receiving the barrier bit and receiving the start bit;

means for receiving a plurality of data units;

means for updating the current data structure based on the received plurality of data units; and

means for advancing the current data structure address to a next location for storing a data unit.

Claim 23 (original): The apparatus of claim 22, comprising means for maintaining a current barrier state, and means for receiving a new barrier state indication different than the current barrier state.

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Claim 24 (original): The apparatus of claim 22, comprising means for maintaining a current barrier bit state and means for comparing the current barrier bit state with a value of the received barrier bit.

Claim 25 (original): The apparatus of claim 22, wherein the plurality of data units include flow control information.

Claim 26 (original): A packet switching system comprising:

a plurality of first elements;

a plurality of second elements;

wherein each of the plurality of first elements includes:

a memory configured to store a first data structure;

a first barrier state maintainer to indicate a current first barrier state;

a first barrier accumulator to receive indications of a first subset of a plurality of barrier request messages, to determine when a first barrier request may be sent to the plurality of second elements, and to update the current first barrier state; and

a first data forwarder for sending information maintained in the first data structure to the plurality of second elements.

Claim 27 (original): The packet switching system of claim 26, wherein each of the plurality of second elements includes:

a second memory configured to store a second data structure;

a second barrier state maintainer to indicate a current second barrier state;

a second barrier accumulator to receive indications of a second subset of a plurality of barrier request messages, to determine when a second barrier request may be sent to a plurality of third elements, and to update the current second barrier state; and

a second data forwarder for sending information maintained in the second data structure in a predetermined order to the plurality of third elements,

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wherein the predetermined order is reset in response to identifying a barrier state transition.

Claim 28 (original): The packet switching system of claim 27, wherein each of the plurality of third elements includes:

a third memory configured to store a third data structure;

a third barrier state maintainer to indicate a current third barrier state;

a third barrier accumulator to receive indications of a third subset of a plurality of barrier request messages, to determine when a third barrier request may be sent, and to update the current third barrier state.

Claim 29 (original): The packet switching system of claim 26, wherein each of the plurality of second elements includes a second data forwarder for sending said first data structure information received from the plurality of first elements to a plurality of third elements.

Claim 30 (currently amended): The packet switching system of ~~claim 26~~ claim 29, wherein each of the plurality of first elements, the plurality of second elements, and the plurality of third elements is a switching element.

Claim 31 (currently amended): The packet switching system of ~~claim 30~~ claim 26, wherein each of the plurality of first elements is a switching element.

Claim 32 (canceled): The packet switching system of claim 31, wherein each of the plurality of ~~first~~ second elements is a switching element.

Claim 33 (new): One or more computer-readable media containing computer-executable instructions for performing operations for sending a plurality of ordered sets of data, said operations comprising:

(a) identifying a current barrier phase different than the previous said current barrier phase, wherein the possible barrier phases consists of two possible barrier phases; and

after said (a) identifying operation: (b) repeatedly, until all of the plurality of ordered sets of data have been sent: sending an ordered set of data of the plurality of ordered sets of data indicated by a current data set indicator along with an indication of the current barrier phase, and advancing the current data set indicator to a next ordered set of data of the plurality of ordered sets of data; and

(c) in response to completing said (b) operation repeating said (a) and (b) operations.

Claim 34 (new): The computer-readable media of claim 33, wherein said identifying the current barrier phase different than the previous phase includes inverting a barrier bit.

Claim 35 (new): The computer-readable media of claim 33, wherein said operations comprise sending a start bit indication when the current data set indicator indicates the predetermined ordered set of the plurality of ordered sets of data.

Claim 36 (new): The computer-readable media of claim 33, wherein said data comprises flow control information.